Amendments to the Claims:

This following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A method for efficiently transmitting GFP-encapsulated client data frames from a local transport interface and at least one local port associated therewith across a SONET/SDH transport network to a remote transport interface and at least one remote port associated therewith, said remote transport interface having a buffer for holding said GFP-encapsulated client data frames received across said SONET/SDH transport network, the method comprising:

sending an identification tag for said local transport interface with at least an initial one of said GFP-encapsulated client data frames;

receiving information from said remote transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames and of round trip transit time indication, the information comprising an indication including a confirmation that the remote transport interface has received the at least one of said GFP-encapsulated client data frames having the identification tag;

receiving identification tags for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer at the time of receipt of said identification tag by said remote transport interface;

determining whether an identification tag has been received from said remote transport interface within a predetermined amount of time;

tracking the number of bytes of GFP-encapsulated client data frames, sent after the at least one of said GFP-encapsulated client data frames having the identification tag, in transit from said local transport interface to said remote transport interface, including counting the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface; and

transmitting more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes

in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer, <u>including transmitting more GFP-encapsulated client data frames responsive to said determining that said identification tag has not been received within said predetermined amount of time</u> so that said SONET/SDH transport network from said local transport interface to said remote transport interface is efficiently utilized compensates for lost bandwidth due to dropped GFP frames or tag acknowledgments.

Claim 2 (original): The method of claim 1 wherein said client data comprise Fibre Channel signals.

Claim 3 (original): The method of claim 1 wherein said client data comprise gigabit Ethernet signals.

Claim 4 (previously presented): The method of claim 1 wherein said receiving step further comprises:

initially negotiating with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 5 (canceled)

Claim 6 (currently amended): The method of claim ~~5~~ 1 wherein said tracking step further comprises:

calculating the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 7 (canceled)

Claim 8 (currently amended): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

at least one integrated circuit adapted to send an identification tag with at least an initial one of said GFP-encapsulated client data frames and to receive information from said remote

transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames; to receive identification tags for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer; to determine whether an identification tag has been received from said remote transport interface within a predetermined amount of time; to count the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface; to track the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface; ~~and~~ to transmit ~~more~~ GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer; and to transmit more GFP-encapsulated client data frames responsive to said determining that said identification tag has not been received within said predetermined amount of time so that said SONET/SDH transport network from said local network interface to said remote network interface compensates for lost bandwidth due to dropped GFP frames or tag acknowledgments.

Claim 9 (original): The transport interface of claim 8 wherein said client data comprise Fibre Channel signals.

Claim 10 (original): The transport interface of claim 8 wherein said client data comprise gigabit Ethernet signals.

Claim 11 (original): The transport interface of claim 8 wherein said at least one integrated circuit is further adapted to initially negotiate with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 12 (canceled)

Claim 13 (currently amended): The transport interface of claim ~~12~~ 8 wherein said at least one integrated circuit is further adapted to calculate the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface

from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 14 (canceled)

Claim 15 (original): The transport interface of claim 8 wherein said at least one integrated circuit is selected from a group comprising ASICs and FPGAs.

Claim 16 (original): The transport interface of claim 8 wherein said at least one integrated circuit comprises a processor and at least one memory subunit, said wherein said processor is configured by software code stored in the memory subsystem.

Claim 17 (currently amended): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

means for sending an identification tag with at least an initial one of said GFP-encapsulated client data frames and receiving, in response thereto, information from said remote transport interface of memory available in said buffer in terms of bytes to hold GFP-encapsulated client data frames and of transit time indication in response to at least one acknowledgment tag;

means for counting the number of bytes of each of said GFP-encapsulated client data frames transmitted by said local transport interface to said remote transport interface;

means for tracking the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface;

means for receiving identification tags for each of said GFP-encapsulated client data frames received by said remote transport interface and the number of bytes available in said remote transport interface buffer;

means for determining whether an identification tag has been received from said remote transport interface within a predetermined amount of time; ~~and~~

means for transmitting ~~more~~ GFP-encapsulated client data frames responsive to said information and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer; and

means for transmitting more GFP-encapsulated client data frames responsive to a determination that an identification tag has not been received within said predetermined amount of time so that said SONET/SDH transport network from said local network interface to said remote network interface compensates for lost bandwidth due to dropped GFP frames or tag acknowledgments.

Claim 18 (original): The transport interface of claim 17 wherein said client data comprise Fibre Channel signals.

Claim 19 (original): The transport interface of claim 17 wherein said client data comprise gigabit Ethernet signals.

Claim 20 (original): The transport interface of claim 17 further comprising:
means for initially negotiating with said remote transport interface for the total amount of space in said buffer reserved for GFP-encapsulated client data frames received from said local transport interface.

Claim 21 (canceled)

Claim 22 (currently amended): The transport interface of claim ~~21~~ 17 further comprising:
means for calculating the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface from said received identification tag and said number of bytes available in said remote transport interface buffer.

Claim 23 (canceled)

Claim 24 (currently amended): A method for efficiently transmitting GFP-encapsulated client data frames from a local transport interface and at least one local port associated therewith across a SONET/SDH transport network to a remote transport interface and at least one remote port associated therewith, said remote transport interface having a buffer for holding said GFP-encapsulated client data frames received across said SONET/SDH transport network, the method comprising:

receiving information, in response to at least an initial tagged encapsulated client data frame, from said remote transport interface of memory available in said buffer in terms of a number of bytes to hold GFP-encapsulated client data frames;

tracking the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface, including timing at said local port against a time limit to check for loss of GFP-encapsulated client data frames across the transport network; and

transmitting ~~more~~ GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface and to said timing receipt of tag acknowledgments to maximize usage of, without overfilling, said buffer, including transmitting more GFP-encapsulated client data frames responsive to a determination that an identification tag has not been received within said time limit, so that said SONET/SDH transport network from said local transport interface to said remote transport interface compensates for lost bandwidth due to dropped GFP frames or tag acknowledgments.

Claim 25 (previously presented): In a network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network to a remote transport interface having a buffer, a local transport interface connected to at least one local port, said local transport interface comprising:

at least one integrated circuit adapted to receive information from said remote transport interface of memory available in said buffer in terms of a number of bytes to hold GFP-encapsulated client data frames in response to at least an initial tagged encapsulated client data frame; to track the number of bytes of GFP-encapsulated client data frames in transit from said local transport interface to said remote transport interface, including timing receipt of a tag acknowledgment against a time limit to check for loss of GFP-encapsulated client data frames across the transport network; and to transmit ~~more~~ GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface and to said timing to maximize usage of, without overfilling, said buffer, including to transmit more GFP-encapsulated client data frames responsive to a determination that an identification tag has not been received within said time limit, so that said

SONET/SDH transport network from said local network interface to said remote network interface compensates for lost bandwidth due to dropped GFP frames and tag acknowledgments.

Claim 26 (previously presented): The network system for transporting GFP-encapsulated client data frames across a SONET/SDH transport network of claim 25 further comprising a network protocol for handling retransmission of lost frames.